



3.5 HDD DATA SHEET

Amazing Versatility.  
Unmatched Dependability.



Seagate delivers trusted performance and reliability with the Seagate® BarraCuda® 3.5-inch HDD—now available in capacities up to 24TB.



### Best-Fit Applications

- Desktop or all-in-one PCs
- Home servers
- Entry-level direct-attached storage devices (DAS)

## Key Advantages

**Versatile** HDDs for all your PC needs bring you industry-leading excellence in personal computing.

**Built on proven reliability and innovation** the BarraCuda family has delivered trustworthy storage solutions for the hard drive industry

**.Capacities up to 24TB** for desktops, BarraCuda leads the market with the widest range of storage options available.

**Advanced Power** modes help save energy without sacrificing performance.<sup>1</sup>

**SATA 6Gb/s** interface optimizes burst performance.<sup>1</sup>

<sup>1</sup> Performance may vary depending on user's hardware configuration and operating system.



| Specifications                                | 24TB               | 20TB               | 16TB               | 8TB              | 6TB              |
|-----------------------------------------------|--------------------|--------------------|--------------------|------------------|------------------|
| Standard Model Number                         | ST24000DM001       | ST20000DM001       | ST16000DM001       | ST8000DM004      | ST6000DM003      |
| Bytes per Sector                              | 512e               | 512e               | 512e               | 512e             | 512e             |
| Performance                                   |                    |                    |                    |                  |                  |
| Interface                                     | SATA 6Gb/s         | SATA 6Gb/s         | SATA 6Gb/s         | SATA 6Gb/s       | SATA 6Gb/s       |
| SATA Transfer Rates Supported (Gb/s)          | 6.0/3.0/1.5        | 6.0/3.0/1.5        | 6.0/3.0/1.5        | 6.0/3.0/1.5      | 6.0/3.0/1.5      |
| Max Sustained Data Rate, OD Read (MB/s)       | 190MB/s            | 190MB/s            | 190MB/s            | 190MB/s          | 185MB/s          |
| Cache, Multisegmented (MB)                    | 512MB              | 512MB              | 512MB              | 256MB            | 256MB            |
| Rotational Speed (RPM)                        | 7200RPM            | 7200RPM            | 7200RPM            | 5400RPM          | 5400RPM          |
| Recording Technology                          | CMR                | CMR                | CMR                | SMR              | SMR              |
| Reliability/Data Integrity                    |                    |                    |                    |                  |                  |
| Load/Unload Cycles                            | 600,000            | 600,000            | 600,000            | 600,000          | 600,000          |
| Nonrecoverable Read Errors per Bits Read, Max | 1 sector per 10E14 | 1 sector per 10E14 | 1 sector per 10E14 | 1 per 10E14      | 1 per 10E14      |
| Power-On Hours (per year)                     | 2400               | 2400               | 2400               | 2400             | 2400             |
| Workload Rate Limit (TB/Year)                 | 120                | 120                | 120                | 55               | 55               |
| Warranty, Limited (years)                     | 2                  | 2                  | 2                  | 2                | 2                |
| Power Management                              |                    |                    |                    |                  |                  |
| Startup Power (A)                             | 2.0A               | 2.0A               | 2.0A               | 2.0A             | 2.0A             |
| Operating Mode, Typical (W)                   | 8.9W               | 8.9W               | 8.9W               | 5.3W             | 5.3W             |
| Idle Average (W)                              | 6.7W               | 6.7W               | 6.7W               | 3.4W             | 3.4W             |
| Standby Mode/Sleep Mode, Typical (W)          | 1.2 W              | 1.2 W              | 1.2 W              | 0.25/0.25        | 0.25/0.25        |
| Voltage Tolerance, Inc. Noise (5V)            | ±5%                | ±5%                | ±5%                | ±5%              | ±5%              |
| Voltage Tolerance, Inc. Noise (12V)           | ±10%               | ±10%               | ±10%               | ±10%             | ±10%             |
| Environmental/Temperature                     |                    |                    |                    |                  |                  |
| Operating (drive reported, min)               | 10°C               | 10°C               | 10°C               | 0°C              | 0°C              |
| Operating (drive reported, max)               | 60°C               | 60°C               | 60°C               | 60°C             | 60°C             |
| Nonoperating (ambient)                        | -40°C – 70°C       | -40°C – 70°C       | -40°C – 70°C       | -40°C – 70°C     | -40°C – 70°C     |
| Halogen Free                                  | Yes                | Yes                | Yes                | Yes              | Yes              |
| RoHS Compliance                               | Yes                | Yes                | Yes                | Yes              | Yes              |
| Physical                                      |                    |                    |                    |                  |                  |
| Height (mm/in, max)                           | 26.1mm/1.028in     | 26.1mm/1.028in     | 26.1mm/1.028in     | 26.11mm/1.028in  | 26.11mm/1.028in  |
| Width (mm/in, max)                            | 101.85mm/4.010in   | 101.85mm/4.010in   | 101.85mm/4.010in   | 101.85mm/4.010in | 101.85mm/4.010in |
| Depth (mm/in, max)                            | 147mm/5.787in      | 147mm/5.787in      | 147mm/5.787in      | 146.99mm/5.787in | 146.99mm/5.787in |
| Weight (g/lb, typical)                        | 695g/1.532lb       | 695g/1.532lb       | 695g/1.532lb       | 630g/1.389lb     | 610g/1.345lb     |
| Carton Unit Quantity                          | 20                 | 20                 | 20                 | 20               | 20               |
| Cartons per Pallet/Cartons per Layer          | 40 / 8             | 40 / 8             | 40 / 8             | 40 / 8           | 40 / 8           |



| Specifications                                | 4TB              | 3TB              | 2TB              |                  | 1TB              |
|-----------------------------------------------|------------------|------------------|------------------|------------------|------------------|
| Standard Model Number                         | ST4000DM004      | ST3000DM007      | ST2000DM005      | ST2000DM008      | ST1000DM014      |
| Bytes per Sector                              | 512e             | 512e             | 512e             | 512e             | 512e             |
| Performance                                   |                  |                  |                  |                  |                  |
| Interface                                     | SATA 6Gb/s       | SATA 6Gb/s       | SATA 6Gb/s       | SATA 6Gb/s       | SATA 6Gb/s       |
| SATA Transfer Rates Supported (Gb/s)          | 6.0/3.0/1.5      | 6.0/3.0/1.5      | 6.0/3.0/1.5      | 6.0/3.0/1.5      | 6.0/3.0/1.5      |
| Max Sustained Data Rate, OD Read (MB/s)       | 190MB/s          | 185MB/s          | 190MB/s          | 220MB/s          | 220MB/s          |
| Cache, Multisegmented (MB)                    | 256MB            | 256MB            | 256MB            | 256MB            | 256MB            |
| Rotational Speed (RPM)                        | 5400RPM          | 5400RPM          | 5400RPM          | 7200RPM          | 7200RPM          |
| Recording Technology                          | SMR              | SMR              | SMR              | SMR              | SMR              |
| Reliability/Data Integrity                    |                  |                  |                  |                  |                  |
| Load/Unload Cycles                            | 600,000          | 600,000          | 600,000          | 600,000          | 600,000          |
| Nonrecoverable Read Errors per Bits Read, Max | 1 per 10E14      | 1 per 10E14      | 1 per 10E14      | 1 per 10E14      | 1 per 10E14      |
| Power-On Hours (per year)                     | 2400             | 2400             | 2400             | 2400             | 2400             |
| Workload Rate Limit (TB/Year)                 | 55               | 55               | 55               | 55               | 55               |
| Warranty, Limited (years)                     | 2                | 2                | 2                | 2                | 2                |
| Power Management                              |                  |                  |                  |                  |                  |
| Startup Power (A)                             | 2.0A             | 2.0A             | 2.0A             | 2.0A             | 2.0A             |
| Operating Mode, Typical (W)                   | 3.7W             | 3.7W             | 3.7W             | 5.1W             | 5.1W             |
| Idle Average (W)                              | 2.5W             | 2.5W             | 2.5W             | 3.9W             | 3.9W             |
| Standby Mode/Sleep Mode, Typical (W)          | 0.25/0.25        | 0.25/0.25        | 0.25/0.25        | 0.3/0.3          | 0.3/0.3          |
| Voltage Tolerance, Inc. Noise (5V)            | ±5%              | ±5%              | ±5%              | ±5%              | ±5%              |
| Voltage Tolerance, Inc. Noise (12V)           | ±10%             | ±10%             | ±10%             | ±10%             | ±10%             |
| Environmental/Temperature                     |                  |                  |                  |                  |                  |
| Operating (drive reported, min)               | 0°C              | 0°C              | 0°C              | 0°C              | 0°C              |
| Operating (drive reported, max)               | 60°C             | 60°C             | 60°C             | 60°C             | 60°C             |
| Nonoperating (ambient)                        | -40°C – 70°C     | -40°C – 70°C     | -40°C – 70°C     | -40°C – 70°C     | -40°C – 70°C     |
| Halogen Free                                  | Yes              | Yes              | Yes              | Yes              | Yes              |
| RoHS Compliance                               | Yes              | Yes              | Yes              | Yes              | Yes              |
| Physical                                      |                  |                  |                  |                  |                  |
| Height (mm/in, max)                           | 20.20mm/0.795in  | 20.20mm/0.795in  | 20.20mm/0.795in  | 20.20mm/0.795in  | 20.20mm/0.795in  |
| Width (mm/in, max)                            | 101.85mm/4.010in | 101.85mm/4.010in | 101.85mm/4.010in | 101.85mm/4.010in | 101.85mm/4.010in |
| Depth (mm/in, max)                            | 146.99mm/5.787in | 146.99mm/5.787in | 146.99mm/5.787in | 146.99mm/5.787in | 146.99mm/5.787in |
| Weight (g/lb, typical)                        | 490g/1.08lb      | 490g/1.08lb      | 415g/0.915lb     | 415g/0.915lb     | 415g/0.915lb     |
| Carton Unit Quantity                          | 25               | 25               | 25               | 25               | 25               |
| Cartons per Pallet/Cartons per Layer          | 40 / 8           | 40 / 8           | 40 / 8           | 40 / 8           | 40 / 8           |

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